

From: Benjamin.Shorr@noaa.gov
To: [JETT Steven](mailto:JETT.Steven@deq.state.or.us)
Cc: [Eric Blischke/R10/USEPA/US@EPA](mailto:Eric.Blischke@epa.gov); [ANDERSON Jim M](mailto:ANDERSON.Jim@deq.state.or.us); [MCCLINCY Matt](mailto:MCCLINCY.Matt@deq.state.or.us)
Subject: Re: RE: Creating add'l COC rasters
Date: 04/23/2009 08:45 PM

Steven- sorry for not replying- I was in an all day meeting.

You raise excellent points and your approach looks really good, however:

Non-detects:

A spot check of total PCB concentrations in the interpolated LWG surface against QM query data showed full detection limit (not 1/2)- but I only had a chance to check a few values. In QM if you run a multi-chem query you are presented with non-detect treatment options; -1 x concentration gives you the opportunity to both count non-detects easily and also apply whatever treatment in Excel.

Lab duplicates:

QM does choose the "preferred" sample if specified in the data delivery from LWG in the case of duplicates or replicates. I think it's OK if this is slightly different than LWG data treatment. if there is a lab duplicate (field LD = #) you can get this by including data with zero lat/long- shouldn't be necessary though.

I'm not sure how LWG handled co-located/duplicate samples- are there a lot of these? I would suggest averaging for interpolation- but it's not necessary.

For the core data- if you choose to include all data (including surface sediment not related to core) then you will have a full query with all data. As for symbology- we haven't settled on how to symbolize data (which PRG(s) to use) but if you want to run a TEC/PEC query we can always symbolize based on the concentration and detectflag field later.

Thanks Steven- sorry for not being available today!

Ben

----- Original Message -----

From: JETT Steven <JETT.Steven@deq.state.or.us>
Date: Thursday, April 23, 2009 1:15 pm
Subject: RE: Creating add'l COC rasters
To: Blischke.Eric@epa.gov
Cc: ANDERSON Jim M <ANDERSON.Jim@deq.state.or.us>, Benjamin Shorr <Benjamin.Shorr@noaa.gov>, MCCLINCY Matt <MCCLINCY.Matt@deq.state.or.us>

> Thanks for the reply, Eric. I was wondering if I was getting a little
> too hung up on the details.

> -----Original Message-----

> From: Blischke.Eric@epa.gov [
> Sent: Thursday, April 23, 2009 12:47 PM
> To: JETT Steven
> Cc: ANDERSON Jim M; Benjamin Shorr; MCCLINCY Matt
> Subject: Re: Creating add'l COC rasters

> Steven, regarding the rules that the LWG applied, they seem reasonable
> to me. I do not know how it was handled when both results were
> non-detect but it should not significantly change the results of the
> analysis. I think it is appropriate not to include areas such as the
> GASCO removal and the M&B cap that have been remediated.

> Overall, your approach looks fine to me. Regarding how to handle
> duplicate samples, the LWG data base and QM handle these differently.
> In one case the values are averaged. In the other case, the original
> result was used. Given the frequency of duplicates at the site, I am
> not sure it matters if the data we extract from QM for metals, total
> PAHs and BEHP are handled a little differently than the data generated
> by the LWG.

> Thanks for your efforts on this. It is greatly appreciated.

> Eric

>

>

>

>

>

>

>

>

>

>

>

>

>

>

>

>

"JETT Steven"

<[JETT.Steven@deq](mailto:JETT.Steven@deq.state.or.us)

.state.or.us>

To

"Benjamin Shorr"

04/23/2009 12:37

<Benjamin.Shorr@noaa.gov>

PM

cc

Eric Blischke/R10/USEPA/US@EPA,

"ANDERSON Jim M"

```

>                                     <ANDERSON.Jim@deq.state.or.us>,
>
>                                     "MCCLINCY Matt"
>                                     <MCCLINCY.Matt@deq.state.or.us>
>
> Subject
>
>                                     Creating add'l COC rasters
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
> Ben, I left you a voicemail this morning, but decided to email since I
> have a few more questions regarding creating the surface rasters for the
> additional COCs. Here is the list that I'll try to get knocked out:
>
> QM CHEMICAL NAME:
>
> Chromium, total'
>
> Copper
>
> Mercury
>
> Nickel
>
> Zinc
>
> PAHs, total
>
> Bis(2-ethylhexyl) phthalate
>
> I thought this was going to be fairly simple, but I'm seeing some
> complexities with how the LWG performed these analysis--particularly
> which sample points were selected and what values were used:
>
> 1)          They used ½ the concentration value when the sample was a
> non-detect.
>
> 2)          For co-located or duplicate/replicate samples, it appears that
> the concentration values were averaged if they were both detects, but
> the detected value was used alone if the other value was an ND. I
> haven't found a situation where both values were NDs, so I'm not sure
> how that was handled.
>
> 3)          It appears they did not use the surface sediment concentration
> values under the mapped dredge/cap areas near NW Natural and M&B.
>
> Is there a write-up of their methodology that you know of? Or maybe I
> shouldn't worry about it and just get something that can be used during
> the retreat for these chemicals. Here's what I'd like to do:
>
> 1)          Extract surface sample data from QM for all studies (w/auto
> documentation on), convert to shapefiles.
>
> 2)          Calculate for non-detects. Use ½ the concentration values when
> it was an ND.
>
> 3)          Reconcile co-located or duplicate/replicate surface sediment
> sample results. I'd appreciate any guidance you can give me on this.
>
> 4)          Use Natural Neighbors interpolation to create rasters masked
> within the extent of the others.
>
> 5)          Extract core sample data from QM for inclusion in sample point
> shapefile for each analyte.
>
> This may not reflect their exact methodology, but considering the time

```

> constraints I think it would be pretty close. Any thoughts?
>
>
> Thanks—
>
>
> Steven M. Jett
>
>
> GIS Coordinator, Cleanup Program
>
>
> Oregon Department of Environmental Quality
>
>
> PH: (503) 229-6819
>
>
> EMAIL: jett.steven@deq.state.or.us
>
>